

### **Abstract**

A data structure within a block of allocable memory of a memory structure such as a heap is used to store an overwrite detection pattern. When memory is passed  
5 back to the operation system for any reason (typically freeing the memory, reallocating a larger/smaller buffer, or querying the size of the allocation), the overwrite detection pattern is usually checked. If the overwrite pattern has been modified, an access violation can be forced.